

CLAIMS

1. A method for correlating network information comprising:
obtaining control information from at least one of a plurality of network resources;
obtaining data transmission information from the at least one of the plurality of
5 network resources; and
determining that the control information and the data transmission information are
related.
2. The method according to claim 1, wherein the act of determining includes
10 determining that a change in control information is related to an observation of a change in
data forwarding.
3. The method according to claim 2, further comprising an act of observing the
change in data forwarding by observing a change, over time, in the data transmission
15 information.
4. The method according to claim 1, wherein the act of determining includes an act of
correlating the control information and the data transmission information.
- 20 5. The method according to claim 1, further comprising an act of storing, in a
database, status information related to a change of the control information.
6. The method according to claim 1, wherein the control information has a causal
effect on the data transmission information.
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7. The method according to claim 1, wherein the data transmission information
includes at least one of the group comprising:
network characteristics;
transport characteristics;
30 application characteristics;
reachability information; and
unavailability information.

8. The method according to claim 5, wherein the control information includes at least one record having a timestamp indicating when the change occurred.
9. The method according to claim 8, wherein the at least one record includes
5 information indicating the nature of the change.
10. The method according to claim 1, further comprising an act of indicating that the change is causally related to a change in data transmission information.
- 10 11. The method according to claim 3, further comprising an act of indicating that the change is causally related to the change in data transmission information.
12. The method according to claim 10, wherein the act of indicating further comprises an act of indicating, to a user, that the change is related.
- 15 13. The method according to claim 11, wherein the act of indicating further comprises an act of indicating, to a user, that the change is related.
14. The method according to claim 1, further comprising acts of:
20 monitoring a data transmission of at least one source address; and
determining at least one network route associated with the at least one source address, wherein the act of determining that the control information and data transmission information are related further comprises correlating data transmission relating to the monitored data transmission with the at least one network route.
- 25 15. The method according to claim 1, wherein the resource in a network communication device is configured to forward data to one or more entities of a communication network.
- 30 16. The method according to claim 1, wherein the control information includes routing information of a network forwarding node.

17. The method according to claim 2, wherein the change in data forwarding is produced by a change in control information of a network forwarding node.

18. The method according to claim 17, wherein the change in control information
5 includes a change of forwarding control information stored in a memory of the network forwarding node.

19. The method according to claim 1, further comprising an act of modeling behavior of a network forwarding system that forwards data based on the control information.
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20. The method according to claim 19, further comprising an act of determining that the obtained data transmission information is inconsistent with the modeled behavior of the network forwarding system.

15 21. The method according to claim 20, further comprising an act of correlating the change in the control information with a change in the obtained data transmission information.

22. The method according to claim 1, wherein the act of obtaining control information
20 includes an act of passively monitoring at least one transmission of the control information.

23. The method according to claim 22, wherein the control information is transmitted over a network.
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24. The method according to claim 1, wherein the act of obtaining data transmission information includes an act of monitoring data stored in a network forwarding system.

25. The method according to claim 19, further comprising an act of modeling a link
30 state of the network forwarding system.

26. The method according to claim 25, further comprising an act of correlating the link state with a change in data transmission information.

27. The method according to claim 1, wherein the act of obtaining control information
5 includes an act of requesting the control information from a network forwarding node.

28. A system comprising:
a collector adapted to receive data transmission information;
a collector adapted to receive control information; and
10 a correlator that correlates the received data transmission information and the received control information.

29. The system according to claim 28, wherein the correlator is adapted to store control information periodically over a period of time.

15 30. The system according to claim 29, wherein the correlator is adapted to store a change in control information.

31. The system according to claim 28, wherein the data transmission information
20 includes at least one of the group comprising:
network characteristics;
transport characteristics;
application characteristics;
reachability information; and
25 unavailability information.

32. The system according to claim 28, wherein the collector adapted to receive the transmission information and the collector adapted to receive the control information are distributed in a communications network.

30 33. The system according to claim 28, further comprising a database adapted to store the received data transmission information and the received control information.

34. The system according to claim 28, wherein the collector adapted to receive the data transmission information is configured to receive the data transmission information from one or more network forwarding nodes.